Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte CHRISTOPH OSTER and MARTIN WAGNER

Appeal No. 2001-2045
Application No. 09/360,936

ON BRIEF[1]

Before COHEN, FRANKFORT, and NASE, Administrative Patent Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection (Paper No. 12, mailed August 10, 2000) of claims 21 to 23, 31, 36 and 38.[2] Claim 34, the only other claim pending in this application, depends from canceled claim 32 and has not been

[1] On October 2, 2002, the appellants waived the oral hearing (see Paper No. 22) scheduled for October 22, 2002.

[2] Claims 24 to 30, 32, 33, 35 and 37 were canceled subsequent to the final rejection.

specifically treated in the either the final rejection or the examiner's answer (Paper No. 17, mailed December 15, 2000).

We REVERSE.

BACKGROUND

The appellants' invention relates to an electrical switch. A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Schooley	5,508,479	April 16, 1996
Yamamoto et al. (Yamamoto)	5,619,021	April 8, 1997

Claims 21 to 23, 31, 36 and 38 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yamamoto in view of Schooley.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the answer for the examiner's complete reasoning in support of the rejection, and to the brief

(Paper No. 16, filed September 26, 2000) and reply brief (Paper No. 18, filed February 15, 2001) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejection of claims 21 to 23, 31, 36 and 38 under 35 U.S.C. § 103. Our reasoning for this determination follows.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

The claimed subject matter

Claim 21, the only independent claim on appeal, reads as follows:

> An electrical switch comprising:
> a housing;
> four fixed contact elements fixed with respect to the housing;
> four movable contact elements movable with respect to the housing, each of the movable contact elements positioned directly opposite from a respective one of the four fixed contact elements;
> an actuating member movable from a neutral position into four actuating positions, wherein in each one of the four actuating positions the actuating member actuates a respective one of the four movable contact elements causing the respective one of the four movable contact elements to contact a respective one of the four fixed contact elements for enabling a corresponding switching function;
> an auxiliary frame surrounding the actuating member and positioned within the housing;
> a first pair of opposed connecting elements integrally formed on the actuating member and the auxiliary frame connect the actuating member to the auxiliary frame, the first pair of opposed connecting elements forming a first pivot axis; and
> a second pair of opposed connecting elements integrally formed on the auxiliary frame and the housing connect the auxiliary frame to the housing, the second pair of opposed connecting elements disposed offset by 90˚ with respect to the first pair of opposed connecting elements, the second pair of opposed connecting elements forming a second pivot axis;
> wherein the actuating member moves from the neutral position into one of the four actuating positions about the first and second pivot axes.

The teachings of Yamamoto

Yamamoto's invention relates to a lever switch device in which a switch can be activated by pressing an operation lever in the longitudinal direction, or tilting the

operation lever, and particularly to a multi-direction switch device that may be utilized as a so-called joystick or the like having a lever tiltable in multiple directions.

One embodiment of Yamamoto's lever switch device is shown in Figures 4 to 7. In this embodiment, the lever switch device includes a square case 1; a square printed board 2 having a pair of stationary contacts 3a and eight pairs of stationary contacts 3b arranged at regular angular intervals of 45 degrees on a circle having the center at the stationary contacts 3a; a switch cover 4 made of rubber having electric insulating property having switch operating units 5a and 5b formed at a total of nine positions respectively corresponding to the pair of stationary contacts 3a and the eight pairs of stationary contacts 3b;[3] a circular base 10 is fixed to the surface of the switch cover 4 such that the base 10 is concentric with the circle on which the eight select switches SW_B are arranged and which is centered at the set switch SW_A; a cylindrical stopper 12; an operation pin 15 having an engaging flange 16 at its base end is fitted into each of eight guide holes 14 in such a manner that the operation pin 15 can freely move in a direction perpendicular to the printed board 2; a square through hole 17 in case 10; coaxial support shafts 18 are formed on the periphery in the surface side of the through

[3] One set switch SW_A includes the stationary contact 3a and the switch operating unit 5a (we note that the lead line for switch operating unit 5a in Figure 4 of Yamamoto is incorrect). Each of the eight select switches SW_B includes one stationary contact 3b and one switch operating unit 5b.

hole 17 so as to respectively protrude from two parallel edges of the through hole's periphery to the inside of the through hole 17;[4] a square cylinder-like bearing unit 20 is rotatably supported on the base 10 by fittingly inserting the support shafts 18 into coaxial bearing holes 21 formed in two parallel faces of the bearing unit 20; coaxial shaft fitting holes 22 are formed in the other two parallel faces of the bearing unit 20;[5] a tilting unit 30 is rotatably supported on the bearing unit 20 by fittingly inserting rotation shafts 31 protruding from the tilting unit's base end into the shaft fitting holes 22;[6] a flange 32 is formed on the outer periphery of the tilting unit 30;[7] an operation lever 40; and a cover 50.

The teachings of Schooley

Schooley's invention relates to a rugged elastomeric rocker switch assembly particularly suited to hand held controllers such as a hand held radio controller.

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[4] On the printed board 2, the common axis of the two support shafts 18 is parallel to the line passing the center of the circle of the eight select switches SW_B.

[5] The common axis of the two shaft fitting holes 22 intersects the axis of the support shafts 18 at right angles in a plane parallel to the face of the printed board 2. The intersection of these axes coincides with the center of the circle of the eight select switches SW_B.

[6] Because the tilting unit 30 is supported by the support shafts 18 and rotation shafts 31, which intersect each other at right angles, the tilting unit 30 can be tilted in any desired direction with respect to the base 10 about the intersection of the shafts 18 and 31 while the neutral posture perpendicular to the printed board 2 is set as the reference.

[7] In the neutral state wherein the tilting unit 30 is perpendicular to the printed board 2, the flange 32 simultaneously butts against all the tip ends of the eight operation pins 15 fitted into the base 10.

Figures 1-15 illustrate the details of an elastomeric rocker switch assembly 10, in combination with a radio frequency transmitting circuit 33. Elastomeric rocker switch assembly 10 has three basic parts: a switch pad 11; a base plate 25; and an electrical switch support shown as printed circuit board 29.

Switch pad 11 has three components which are integrally attached together, preferably molded as a single piece from an elastomeric material. The three components are (1) a switch pad base member 12, (2) one or more rocker switch blocks 13, and (3) thin web connectors 14. Each switch block 13 is suspended within base member 12 by two thin elastomeric web connectors 14. Schooley teaches (column 2, lines 8-11; column 3, lines 39-40) that advantageously, the switch pad base member 12, rocker switch blocks 13 and thin web connectors 14 are all integrally molded from an elastomeric material such as rubber, rubberized plastic or Teflon®.

The examiner's position

In the rejection of claim 21 before us in this appeal (answer, pp. 3-4), the examiner (1) ascertained[8] that Yamamoto "discloses all of the claimed limitations with

[8] After the scope and content of the prior art are determined, the differences between the prior art and the claims at issue are to be ascertained. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

the exception of at some of the connection means being integrally formed between the various elements to create a film-hinge," and (2) determined that it would have been obvious to one of ordinary skill in the art to use film hinges rather than rods in Yamamoto in view of the teachings of Schooley so as to reduce the number of manufacturing steps since the frame (i.e., bearing unit 20) and the actuating member (i.e., tilting unit 30) of Yamamoto could be molded simultaneously.

The appellants' position

The appellants argue (brief, pp. 6-8; reply brief, pp. 2-3) that absent the use of hindsight knowledge derived from the appellants' own disclosure[9] there is no teaching, suggestion, motivation or incentive in the applied prior art for a person of ordinary skill in the art at the time the invention was made to have modified Yamamoto's switch to arrive at the claimed invention.

Our position

A critical step in analyzing the patentability of claims pursuant to 35 U.S.C.

[9] The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

§ 103 is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher." Id.

Most if not all inventions arise from a combination of old elements. See In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. See id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See id. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the appellant. See In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. See WMS Gaming, Inc. v. International Game Tech., 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. See In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) (and cases cited therein). Whether the examiner relies on an express or an implicit showing, the examiner must provide particular findings related thereto. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. Broad conclusory statements standing alone are not "evidence." Id. When an examiner relies on general knowledge to negate patentability, that knowledge must be articulated and placed on the record. See In re Lee, 277 F.3d 1338, 1342-45, 61 USPQ2d 1430, 1433-35 (Fed. Cir. 2002).

In this case, after reviewing the disclosures of the applied prior art, we find ourselves in agreement with the appellants that absent the use of impermissible hindsight there is no teaching, suggestion, motivation or incentive in the applied prior

art for a person of ordinary skill in the art at the time the invention was made to have modified Yamamoto's switch to arrive at the claimed invention. In that regard, it is our view that the motivation provided by the examiner in the rejection (answer, p. 4) and the additional motivations provided in the examiner's response to argument section of the answer (p. 5) are not taken from the actual teachings of the applied prior art but instead appear to be taken from the appellants' disclosure or fabricated by the examiner.

For the reasons set forth above, the decision of the examiner to reject claim 21, and claims 22, 23, 31, 36 and 38 dependent thereon, under 35 U.S.C. § 103 is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 21 to 23, 31, 36 and 38 under 35 U.S.C. § 103 is reversed.

REVERSED

IRWIN CHARLES COHEN Administrative Patent Judge	)
CHARLES E. FRANKFORT Administrative Patent Judge	) BOARD OF PATENT) APPEALS) AND) INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)

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